ERTIFIED ESTING **ABORATORIES**

Architectural Division • 7252 Narcoossee Rd. • Orlando, FL 32822

(407) 384-7744 • Fax (407) 384-7751

Web Site: www.ctlarch.com

E-mail: ctlarch.com

Report No.: CTLA-1493W DC Not. No 06009

CTL Certification # 05-0314-01

Report Date: March 16, 2006

Test Dates February 6, thru February 10, 2006

Test Requested By-

Janus International Corp.

134 East Luke Road Temple, GA 30179

Tests Conducted:

TAS 201 Large Missile, TAS 202 (Structural Only) & TAS 203

Design Pressures-

Specimen # 1 (TAS 201, 202 Structural only & 203) D/P + 43 D/P- 49

Specimen # 2 (TAS 201 & 203) D/P + 43 D/P- 49 Specimen # 3 (TAS 201 & 203) D/P + 43 D/P-49

(1) DESCRIPTION OF SERIES:

Model designation: Specimen # 1 & #2 Dade County Commercial Door Series 3400. 24 gauge

Specimen #3 Dade County Commercial Door Series 3400. 24 gauge

Overall Size:

Specimen #1 & #2

12'-0" wide x 8'-0" high- Anchored to CMU Block

Specimen #3

12'-0" wide x 8'-0" high- Anchored to Structural Steel

Configuration:

All Specimens-

Roll-up Single Curtain

(2) MATERIAL CHARACTERISTICS:

Curtain:

Specimen #1 & #2 24 Gauge Galvanized steel corrugated anchored to CMU Block

Specimen #3

24 Gauge Galvanized steel corrugated anchored to Structural Steel

Guides:

All Specimens: Both guides were 12 gauge galvanized steel measuring 2" wide x 4" long x .105" thick with a 12 gauge galvanized steel wind bar measuring 1.188" x .984" x .188" x .105" thick. Wind bar secured with guide anchor when anchored to CMU block and

plug welded when anchored to structural steel.

Windlocks:

All Specimens: 11 gauge galvanized structural steel windlocks 1.130" wide x 3.040"long

x .112" thick located every corrugation excluding seamed corrugations. Each windlock

secured to corrugated curtain with two (2) 3/16" rivets-zinc coated.

Bottom Bar: All Specimens: One (1) 24 gauge steel bottom bar with continuous vinyl bulb astragal on bottom. One (1) galvanized steel angle measuring 2" x 1.500" x .105" x full width of curtain. Through bolted with 1/4" bolt and lock nut located two (2) at each end and two (2)

in middle of curtain. Intermediate single bolts located 12" max on center thereafter.

All Specimens: One (1) commercial slide lock located at each end of bottom bar. Each attached with two (2) 1/4" bolts and lock nuts.

3/17/05

Page 2 of 5 Report#

Janus International Corp

CTLA-1493W

Comment:

Specimens were tested and anchored to filled concrete block and steel jambs to certify both configurations per Dade County.

Installation:

Methods of Attachment

Specimen #1 & #2 Both sides were anchored to the filled CMU blocks with 3/8" x 4" long Powers Wedge-bolt anchors through interior of guide and wind bar. Located 4.00" from floor and 8.00" max. thereafter. Reference figure "A" drawing #CTL-001 for Dade Co. approval.

Specimen #3 Both sides were anchored to .250" thick structural steel with 1/4"- 14 x 1" (ITW Buildex as stated by manufacturer) self-drilling TEKS screws at toe of guide. Located 4.00" from floor and 6.00" max. thereafter. Reference figure "C" drawing #CTL-001 for Dade Co. approval.

Deflection/Set was measured at center mid-span of each curtain. Readings obtained with a Starret 25' Digital Measuring Tape SN D1-25 (64443).

Uniform Static Loading Specimen 1 TAS 202-94 **Deflection / Set / Recovery** 30 Second Loading ASTM E330-02 **Design Loads** +43 psf -49 psf

Range of Test		Actual Load	Deflection	<u>Set</u>	Recovery
5%	Design Load Positive	2.2 psf			
50%	Test Load Positive	32.3 psf	9.200"	.012"	99 %
150%	Design Load Positive	64.5 psf	10.020"	.010"	92 %
5%	Design Load Negative	2.5 psf			
50%	Test Load Negative	36.8 psf	10.021"	.049"	99 %
150%	Design Load Negative	73.5 psf	10.975"	.035"	93 %

The Curtain was fully operable prior to and at the conclusion of this test, and did not sustain any damage that would render it inoperable.

Specimen 1 TAS 201-94 Large Missile Impact

Results

Type of missile 8ft, 9 lbs #2 Southern Yellow Pine 2"x 4"

Impact Loc# 1@ Center Mid Span Missile Speed 50.3 ft per second

Impact Loc# 2 within a 5" Radius, 6" from bottom right corner Missile Speed 50.1 ft per second

No rupture or penetration

No rupture or penetration

The curtain was fully operable prior to and at the conclusion of the test, and did not sustain any damage that would render it inoperable. h 2 laht 1. 12

Specimen 1 TAS 203-94 Cyclic Wind Pressure

Cycle time = Four (4) to Six (6) seconds Design Loads +43 nef _10 nef

Design	i Liuaus 1745 psi	-49 hai			
Range	of Test	<u>Actual</u>	No. of Cycles	Deflection	<u>Set</u>
50%	Design Load Positive	21 psf	600	·	
60%	Design Load Positive	25 psf	70		
130%	Design Load Positive	55 psf	1	10.250"	.250"
50%	Design Load Negative	25 psf	600	•	
60%	Design Load Negative	29 psf	70		
130%	Design Load Negative	64 psf	1	12.250"	.000"

The curtain was fully operable prior to and at the conclusion of the test, and did not sustain any damage that would render it in operable. In addition visual inspection of the anchorage revealed no apparent damage.

Specimen 2 TAS 201-94 Large Missile Impact

Results

Type of missile 8ft, 9 lbs #2 Southern Yellow Pine 2"x 4"

Impact Loc# 1@ Center Mid Span Missile Speed 50.1 ft per second

Impact Loc# 2 within a 5" Radius, 6" from bottom left corner

Missile Speed 50.1 ft per second

No rupture or penetration

No rupture or penetration

The curtain was fully operable prior to and at the conclusion of the test, and did not sustain any damage that would render it inoperable.

Specimen 2 TAS 203-94 Cyclic Wind Pressure

Cycle time = Four (4) to Six (6) seconds

Design	Loads	+ 43 psf	-49 psf			
Range	of Test		<u>Actual</u>	No. of Cycles	<u>Deflection</u>	<u>Set</u>
50%	Design Lo	ad Positive	21 psf	600		
60%	Design Lo	ad Positive	25 psf	70		
130%	Design Lo	ad Positive	55 psf	1	9.000"	.000"
50%	Design Lo	ad Negative	25 psf	600		
60%	Design Lo	ad Negative	29 psf	70	4	
130%	Design Lo	ad Negative	64 psf	1	11.500"	.000"

The curtain was fully operable prior to and at the conclusion of the test, and did not sustain any damage that would render it in operable. In addition visual inspection of the anchorage revealed no apparent damage.

Comment: Nominal 2- mil polyethylene film was used to seal the specimen against air leakage during structural loads. The film was used in a manner that did not influence the test results.

Specimen: 3 TAS 201-94 Large Missile Impact

Results

Type of Missile 8ft, 9lb., #2 Southern Yellow Pine 2"x 4"

Impact Loc# 1- Center Mid-Span of curtain

Missile Speed 50.3 ft per second

ong.

Impact Loc# 2- within a 5" Radius, 6" from bottom left corner

Missile Speed 49.9 ft per second

No Rupture or Penetration.

No Rupture or Penetration

The Curtain was fully operable prior to and at the conclusion of this test, and did not sustain any damage that would render it operable.

1/17/0 %

Specimen 3 TAS 203-94 Cyclic Wind Pressure

Cycle Time = Four (4) to Six (6) seconds Design Load + 43 psf - 49 psf

Range of Test		Actual Actual	No. of Cycles	Deflection	<u>Set</u>
50%	Design Load Positive	22 psf	600		
60%	Design Load Positive	26 psf	70		
130%	Design Load Positive	56 psf	1	10.000"	.000"
50%	Design Load Negative	25 psf	600		
60%	Design Load Negative	29 psf	70		
130%	Design Load Negative	64 psf	1 .	12.125"	.250"

The curtain was fully operable prior to and at the conclusion of the test, and did not sustain any damage that would render it in operable. In addition visual inspection of the anchorage revealed no apparent damage.

Drawings: Submittal drawings numbered, Titled Janus International Corp. T 1011 pages 1 of 2 and 2 of 2, CTL-001 Reference figure "A" and "C" marked with the CTL stamp are included as part of this report.

Remarks: Detailed drawings were available for laboratory records and comparison to the tested specimens at the time of this report. A copy of this report along with representative sections of the tested specimens will be retained by CTL for a period of ten (10) years.

The results obtained apply only to the specimens tested. This test report does not constitute certification of this product, but only that the above results were obtained using the designated test methods and they indicate compliance with the performance requirements (paragraphs as listed) of the above referenced specification.

Certified Testing Laboratories assumes that all information provided by the client is accurate, and that all physical and chemical properties of the components are as stated by the Manufacturer.

Certified Testing Laboratories, Inc.

Report #

Observers

Don Mills- Janus International Corp Joseph H. Dixon, Jr. P.E.

All Test Witnessed By

Ted Scanlon- CTL Gary Nations- CTL Kenny Stringer- CTL

Dade Co. Witness Present

Not Present

Michael Miller

Michael Miller Senior Lab Technician Architectural Division

cc: Janus International (3)
Dade County (1)
Joseph H. Dixon, Jr. P.E. (1)
Ramesh Patel P.E. (1)
File (1)

Ramesh Patel, P.E. 3 17 0 L
Florida Reg. #20224
Structural Engineer





7252 Narcoossee Rd., Orlando, FL 32822 407-384-7744 • Fax 407-384-7751 Website: www.ctlarch.com E-mail: ctlarch.com

TENSILE TEST RESULTS

CLIENT:

JANUS INT'L

CTLA NO: DADE NO: 1493W 06009

MATERIAL: SHEET STEEL

DATE:

14 FEB 06

CTL#:

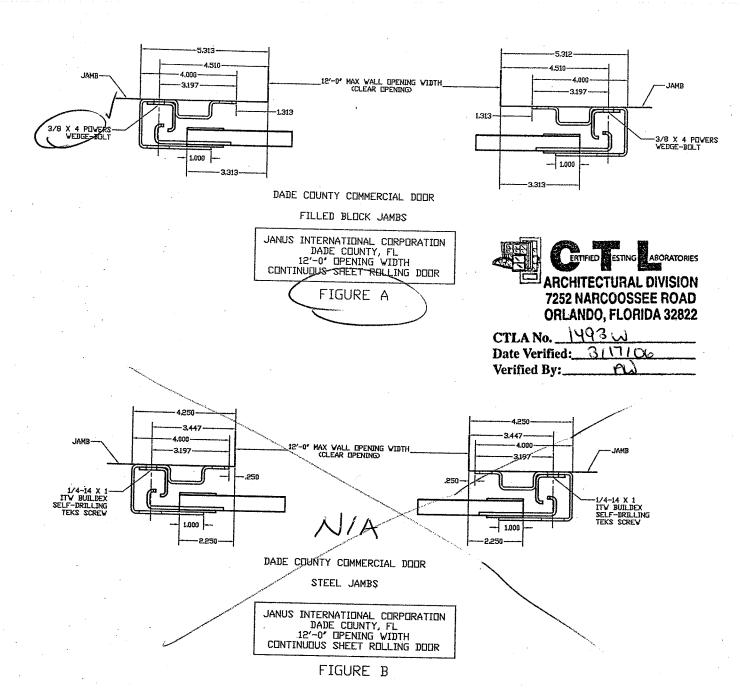
0091N

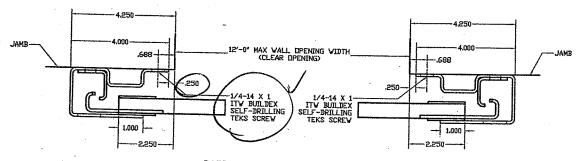
	ERTIFIED ESTING ABORATORIES
	ARCHITECTURAL DIVISION
	7252 NARCOOSSEE ROAD
٠	ORI ANDO, FLORIDA 32822

Date Verified: 3/17/10 Verified By:__

41	SPEC	DIM.	DIM. (IN)		ULT	ULT	YIELD	YIELD	ELONG
NO.	NO.	WIDTH	THICK	(IN. SQ)	LOAD (LBS)	STRGH (PSI)	LOAD (LBS)	STRGH (PSI)	IN 2" (%)
6	1	.503	.022	.0111	1180	105,860	1160	104,900	1.1
7	2	.510	.022	.0112	1240	110,890	1120	109,400	1.9
8	3	.505	.022	.0111	1240	111,260	1220	109,800	3.2
		·							
									·
·									
		·					•		

The above tests were performed using a Baldwin Model 120 TBE S/N 33220 Universal Tester, equipped with a SATEC Mark III Digital recorder. Calibration is traceable to N.I.S.T. Tests conducted in accordance with ASTM E8/A370 or B557.





DADE COUNTY COMMERCIAL DOOR

STEEL JAMBS

FIGURE C

JANUS INTERNATIONAL CORPORATION
PADE COUNTY, FL
12'-0' OPENING WIDTH
CONTINUOUS SHEET ROLLING DOOR

CTL-001